

the Pallid Swift were nesting in a low sandstone cliff, in holes that had the appearance of Sand-Martins' holes, only larger.

Our homeward voyage was very different to our outward, for after beating against a high headwind for two days, we had to anchor near the lighthouse on the point of Jandia, and wait for a fairer wind and less of it. This, though very tedious, was the means of my obtaining a bird that I had hoped to get, but had not seen before (I had, however, been told of its existence by the islanders), the Black Oystercatcher (*Hæmatopus capensis*). Whether this species breeds in Fuerteventura or no, I cannot say, but I was assured it did so on the north coast and on the islands of Lanzarote and Graciosa, and the bird I shot was an old female with well-developed eggs.

Between the high mountains of Jandia and the lighthouse runs a low headland some four or five miles long by one or two wide, all of sand, slightly raised above sea-level, and covered, when we were there, with a very sweet-scented dwarf stock. All the Waders were here in numbers, and I saw a small flock of Sand Grouse and a few Coursers, but the latter were not breeding here. Ospreys were continually in sight, sometimes three or four on the wing together. My delay enabled me to lay in a good store of lizards for my Shrike, which was thriving, and apparently the only passenger on board who did not find the journey irksome. After waiting here for two days the weather improved somewhat, and we beat across to Grand Canary, arriving *five* days after leaving Puerto Cabras, the distance between the islands being fifty-four miles.

II.—Ornithological Notes on the Island of Gran Canaria.

By H. B. TRISTRAM, D.D., F.R.S.

DRIVEN by the bitter blasts of our north-eastern coast to seek a holiday under more sunny skies during the three spring months of the present year, the Canary Islands were

happily suggested, as affording not only a balmy climate but perchance some objects of interest to the ornithologist. A voyage of eight days from Liverpool brought us to Las Palmas, the capital of Gran Canaria. We were delayed by having encountered the worst storm of the season in the chops of the Channel; but after passing the latitude of Gibraltar we had summer seas and gentle breezes. To the eastward of Madeira we began to notice large flocks of Shearwaters, chiefly *Puffinus kuhlii*, with other smaller species, while the Gulls and Guillemots entirely disappeared. Early one morning I noticed a number of a small Petrel for an hour or two. These birds I at first took for Wilson's Petrel, *Oceanites oceanica*, but soon saw that they had far more white on the lower back and abdomen than that bird, and that they were probably *Procellaria marina*, which has more than once been taken off Canary. On examining our place on the ship's chart I found that we were not more than twenty miles east of the Salvages, a desert group of waterless rocks, rarely visited, for there is no anchorage, but which are known to be a favourite breeding-place of many species of sea-fowl. I have little doubt but that these birds, which I never saw again until near the same spot on the return voyage, were preparing to breed on the Salvages.

On Sunday morning, March 18, we sighted the distant peak of Tenerife, and had a magnificent view of the island as we steamed along its northern shore towards Gran Canaria, which we reached soon after nightfall. One day sufficed for hotel and other arrangements in that happy land, where custom-houses are unknown and trade is literally free.

The first view of Gran Canaria from the roadstead of Las Palmas is not attractive, the island, which is a solid, almost circular, mass of volcanic rock, about thirty miles in diameter, rising precipitously from the ocean depths to a height of 6000 feet above the sea-level, and having no shore except on the south side, where there is a low desert tract covered with scorïæ. Unlike its greater sister, Tenerife, there is no one central peak, but a central mass of jagged

crests from 5700 ft. to 6300 ft. high. No forest clothes the slopes of Gran Canaria. Every available patch of land is laid under cultivation, and the Spaniards, ignorant of the value of forests, of which there are so few in their motherland, are ruthlessly destroying for charcoal the isolated patches of primæval timber which here and there remain.

Monday sufficed for hotel arrangements and a walk of three miles out towards the interior, on a finely engineered road, over as dreary and rugged a volcanic spur as could be imagined, so soon as I had passed through the gardens and palm-groves which encircle the city. The Spanish Sparrow seemed to monopolize these, save for a few Pallid Swifts rapidly darting about. The open hillside has absolutely no turf or smaller herbage, but is sparsely clad with bushes of various species of *Euphorbia*, the only examples of vegetable life. Birds there were none save several Kestrels, all males, keenly on the look-out for the small black lizards which abound among the cinders, and a few of the Canary Pipit (*Anthus bertheloti*), with which I here made my first acquaintance. I have little to add to Capt. Savile Reid's description of this bird. I rarely saw two together, but individuals are scattered over every part of the country, whatever its character. I found them in all the islands, alike among the cinders, in the fields, on the roadsides, in the open spaces in the forests, and even on the Cumbres, the desert bare plateau above the limit of ordinary vegetation. It is the one bird of the islands which seems to maintain itself everywhere, and is comparatively indifferent to the presence of man, simply running along before the pedestrian and sometimes perching on a tree. Later in the season I found its nest more than once, not differing from that of our Meadow Pipit, and with similarly marked eggs.

The next morning I started with two English friends for a few days in the interior, fearing that I had made a mistake, ornithologically, in choosing Gran Canaria for my début among the islands. We went by diligence to Arucas, among the mountains on the north side of the island. The carretero, or carriage road, was splendidly constructed, and the

country reminded me much of Malta, with its careful terraced cultivation and the absence of wood, except orange and other fruit trees. The next striking feature was the immense number of reservoirs and the carefully constructed channels for irrigation. The Spanish Sparrow, Linnet, and Goldfinch were the only birds noticed. Arrived at the little town, we were set down with our baggage in the market-place and left to our own devices. As my companions knew not a word of Spanish, and I little more than they, we felt rather forlorn. However we soon found a man who volunteered to take our baggage on his donkey to Firgas, the village which we proposed to make our headquarters for two or three days; it was only a two hours' walk, across a well-cultivated, irregular, upland plain. Berthelot's Pipit was the first Canarian specimen I procured in this walk, then the Common Bunting, which abounded, uttering his spluttering note from the stems of the asphodel. I put up a Norfolk Plover out of shot, and vainly stalked it for half an hour.

At Firgas, finding no fonda to receive us, we were at last taken in by a peasant, whose quaint cottage possessed an upper storey and a balcony, and whose wife fortunately had been in service and was a good cook, while our host professed to know well the Barranco de la Virgen, or Virgin's Ravine, which I intended to explore the next day. Our quarters were clean and free from vermin, as were all I experienced in all the islands, with but one exception.

Next morning, with my host for guide and porter carrying my provisions and botany-box, I started at daybreak for the barranco, my friends making another expedition to the Pico Osorio. Half an hour brought us to the edge of the barranco, into which we descended by a breakneck path. The splendour and novelty of the flora in the sides of the cliffs were absolutely bewildering, but I must confine myself to the birds.

I soon found that if there were neither rarities nor abundance, there was variety enough to satisfy the keenest naturalist. The Egyptian Vulture was never out of sight.

Indeed we had seen numbers on the day before from the suburbs of Las Palmas onwards. The Buzzard was frequently to be observed, and I had hardly begun to descend the steep path when I noticed a pair of Falcons on the crest of the cliff on the opposite side of the glen. The male was in the act of treading. By the aid of my field-glasses I scrutinized them very closely. They looked to me of a much lighter russet than our ordinary Peregrine, and I fancied I might have before me *Falco barbarus*. But I afterwards found a pair in the Museum of Las Palmas, shot in this gorge, which were undoubted Peregrines, though of a very reddish hue. At any rate the Peregrine, for which Canary was once famous, is not yet quite extinct. Kestrels here abounded, but their nesting-places were hopelessly out of reach. I shot a male, which, like all those subsequently obtained, was small and very much darker than our English specimens; the wing is an inch shorter and the bill very much smaller than in European or Asiatic specimens. Its food seems to be almost exclusively lizards. Field-mice are unknown, and the small birds are far too few to maintain the population of Kestrels.

Arrived at the bottom of the barranco, where is a scanty perennial stream, the most conspicuous bird was the Grey Wagtail, perhaps the most numerous bird of Gran Canaria, encouraged by the number of reservoirs, at each one of which there is sure to be a family of these charming birds, perfectly tame and fearless. By the side of a pool formed by the little stream under a group of trees a number of Wagtails were disporting themselves. In a book recently published on the Canaries, and in which is a very good engraving of this charming spot, it is stated that flocks of Canaries inhabit it, and may be seen drinking at the water's edge! At any rate the Wagtail has as much yellow on its plumage as the wild Canary. However rich botanically, the barranco did not repay ornithologically, and the Black-cap was the only other species I obtained. My guide, however, informed me that he knew where I might find "Palomo Turquoise," the Trocaz Pigeon, which he distin-

guished from the Blue Rock Pigeon, of which we had seen many in the cliffs above us. After working up the glen for three hours, we clambered out on the opposite side, and emerged on what is certainly the richest piece of Gran Canaria,—Doramas, not a village, but a district of scattered houses and farms, with lovely pathways shaded by laurel trees, Indian fig, and various other non-European trees, to me then unknown. At the further end of Doramas is a fragment of primæval forest of laurel trees, and here we hoped to find the "Palomo Turquese." We gradually ascended till we reached a height of 4000 feet on the side of the Pico de la Virgen. In the wood I had a glimpse of two Pigeons which passed over us, and which the guide exclaimed were the "Turquese." They were not the Rock Dove, and certainly had not the whitish tail of *Columba laurivora*, which is very conspicuous in flight, and with which I fortunately became well acquainted elsewhere. The extremity of the tail was dark, but more than this I cannot aver. On another occasion I got a better view of a solitary Pigeon of the same species in a patch of laurel not far from Doramas.

Both my guide at Doramas and another mountaineer whom I found near the Pinar del Pajonal professed to be well acquainted with the Turquese, and stated that while the laurel-forest existed it was common. But the Spanish Government unfortunately rewarded a hero of the Cuban war by a grant of this crown-forest, and he naturally enough at once proceeded to cut down all the timber and cultivate the estate. Now both the known Pigeons, *C. bollii* and *C. laurivora*, live principally, if not almost exclusively, on the fruit of laurel trees; small wonder, then, that Turquese has disappeared along with his food! But the problem remains unsolved, was the Turquese of Gran Canaria a distinct species, or was it *C. bollii* of Tenerife and Gomera? Probably the latter. But we have not yet ascertained the species of the island of Palma; and should this latter prove distinct, the Pigeon of Gran Canaria may have been so likewise, and be on the verge of perishing, like the avifauna of Rodriguez and Mauritius, unwept, unhonoured, and unsung.

In the glades of Doramas I obtained my first Blackbird, which is not nearly so common as in Tenerife, and is more shy. Nor have I observed it, as in the latter island, lower than about 2000 feet, while in Tenerife it is found from the shore up to 4000 feet. Though no doubt specifically identical with our familiar friend, yet there is a tendency to become what some of my friends would term an incipient species, especially in the direction of equalization of the sexes. After examining a very large series in the British Museum and elsewhere, I find no approximation to the male plumage in the Canary female examples which I cannot match elsewhere; but in the one case it is exceptional, in the other it is constant.

Proceeding onwards, at the edge of the forest I heard a note, resembling that of a Chaffinch, but more varied and powerful, and ending with a sustained trill. On the extremity of a branch was perched the musician (*Fringilla tintillon*). In the course of half an hour I secured four specimens, three males and one female. They did not appear to have as yet commenced the duties of nidification. April and May are the usual time for the nesting of this Chaffinch. Unlike the Pipit, the Tintillon has a very limited perpendicular range. Neither in Canaria, nor in Tenerife, nor in Gomera did I ever find it lower than 2000 feet, and it is commonest at the edge or in the opens of the forest belt, from 3000 ft. to 4500 ft. in altitude. The call-note, nest, and eggs are identical with those of our Chaffinch, but the eggs run a trifle larger.

I see that Mr. Sharpe, in his British Museum Catalogue, endeavours to discriminate between the Tintillon of Madeira, Azores, and Canaries, making them three subspecies. On examining, however, the series in the British Museum, I found that the distinctions are scarcely borne out by them; and my own series presents examples from the Canaries corresponding to all three subdivisions in the Catalogue. The frontal band in one of my Azorean specimens is more distinctly marked than in any of the Canarians, but not sufficiently so as to necessitate separation; while, as to the colour

of the back, I obtained in the same district and in the same week specimens with the back olive-yellow to the neck, with the back slaty blue to the upper tail-coverts, and with the back half slaty blue and the lower half olive-yellow. Besides these I shot a specimen in Gomera on the 9th of May which has the centre of the back, between the slaty blue and the olive-yellow, reddish brown, the exact hue of the back of our Chaffinch. Yet in the same forest I shot others without a trace of this hue, but olive-yellow nearly to the neck. It is impossible to attribute this variation to seasonal change, as all my specimens are breeding birds, and all were obtained between the middle of March and the 12th of May. Nor can we suppose that age has much to do with the matter, when out of fourteen Canarian male specimens I have examples of seven different proportions in the distribution of the colours of the back. Again the under surface varies in like fashion from the palest salmon-colour to a dark brownish pink. The specimens (three) from Gomera are the darkest on the under surface, darker even than Madeiran birds. But in Gran Canaria itself I obtained dark- as well as light-breasted examples. The only conclusion at which I can arrive is that *Fringilla tintillon* has by no means made up its mind as to what-coloured livery it shall wear, but is resolved to assert the rights of the individual, and to exercise freedom of choice, though very possibly in lapse of time and by isolation the fashions may become stereotyped differently in different islands, and that Gomera will adopt a deeper-dyed cloak than even moist Madeira.

In the hedgerow timber of Doramas I obtained a pair of Chiffchaffs. This is one of the most abundant species in all the three islands I visited, and, like the Pipit, is found in highlands and lowlands alike, equally common in the sugar-cane plots, the hedgesides, the gardens, and the dense forest glades. It is, moreover, a constant resident, not even migrating up and down the hills; for its food in the evergreen verdure of the Canaries is equally abundant everywhere at all times of the year. I was surprised to hear a note quite different from that of our Chiffchaff, and had no idea, until I picked it up, that the first specimen I shot, and to which

I had been attracted by its note in the top of a laurel tree, was a Chiffchaff. I then noticed its yellow legs and feet, and though I have taken a few specimens with rather darker tarsi, I never found one with dark brown tarsi approaching our bird in intensity of colour. The eggs do not differ from those of our Chiffchaff, and the architecture and lining of its domed nest is the same. Why it should use such a profusion of feathers for the lining in so warm a climate I do not pretend to explain. But I never heard of the nest being placed on or near the ground. All those which I secured, by the help of boys, were in the crowns of palm trees, and one high up in a laurel tree. I did not succeed in obtaining any nests in the forests of Teneriffe and Gomera, where the bird was extremely abundant, but always resorting to the higher branches of trees, and many a specimen I brought down fancying I had got a Golderest. Its song consists of four notes ending in a long trill; but later in the season one heard more frequently the "chip chip" of our own bird, often interjaculated between the staves of the longer refrain. Its wing-formula also differs from that of the European *Phylloscopus rufus*. While our bird has its third and fourth primaries longest and equal, and the second intermediate between the seventh and eighth, though sometimes, but rarely, nearly equalling the sixth, the Canarian bird has always the fourth and fifth longest, and the second shorter than the eighth. This holds good in all the twelve specimens I have examined, and from all three islands of Canaria, Teneriffe, and Gomera. I have therefore no hesitation in claiming for this bird specific rank, and propose to name it

PHYLLOSCOPUS FORTUNATUS, sp. nov.

Ph. *Phylloscopo rufo* (Bechst.)=*Ph. collybitæ* (V.) simillimus, sed tarsis et pedibus pallide flavidis: remigibus quarto et quinto, nec tertio et quarto, longissimis: et remige secundo octavo brevior.

Hab. Insulæ Canarienses.

Heading up the valley near Valleseco I returned towards Firgas through a very rugged but open and richly cultivated country. The slopes were generally terraced, and the bright

call of the Quail resounded from every field. But the crops, chiefly of Indian corn and French beans, were too far advanced for us to walk through them; and though the Canarians are, of all people in the world, the most tolerant of trespassers, I could not venture to try to walk up the game, which, indeed, without a dog, would not have been a very successful enterprise.

A Red Kite (*Milvus ictinus*) obligingly passed over my head and gave me the opportunity of securing a very fine female specimen which had not yet bred. The Kite, though pretty generally distributed, so that one could seldom be out for a day without seeing one, is by no means abundant in individuals, and seems to feed here exclusively on offal. It is a migrant, and retires during the winter, while the Buzzard remains.

Up to this time, though I had frequently seen the Linnet and the Goldfinch, I had not yet found the Canary bird, but at length secured one of a pair sitting in a peach-tree overhanging the path. The Canary is certainly much scarcer in Canaria than in Tenerife or Gomera. In fact it was not easy to get more than one or two in a day's ramble, while in the other islands one might without trouble secure more in a morning than I should care to skin in a day.

In Canaria, though it descends lower than the Tintillon, I never saw it, as I did in Tenerife, near the sea-level; but I was told that in winter it comes down in small flocks to the coast. I often saw Canaries feeding along with Linnets. In the other islands we found in May large flocks of the national bird above the forests, among the pine trees, at a height of 5000 feet. They appeared to be chiefly birds of the year. Their song is identical with that of the domesticated race, or perhaps finer. I listened to a singing-match between a Canary and a Linnet in two neighbouring trees, and the superior power and richness of the notes of the former were indisputable. Its habits, as might be expected, hardly differ from those of the Linnet, excepting that it more affects trees and perches higher. The nest is neat and Linnet-like, abundantly lined with goat's hair. A

thriving trade is carried on at the Port with the passengers of the African and New Zealand steamers in yellow Canaries, which fetch a fancy price, as being the "real thing." I was amused to find these birds priced at from 3 to 5 dollars, while the real native, perfectly tame and singing as well as the other, could be had for half a dollar.

My only other capture of interest on this my first day's outing was *Cypselus unicolor*, a flock of which graceful bird were skimming low as the evening set in. This Swift has a different flight from that of *C. apus*, more gliding, and is very silent on the wing. Parties may be seen from sunrise to sunset systematically hunting, generally sweeping laterally over the upland plains or along the face of the steeper cliffs, and returning in about an hour to the same spot. At mid-day I have noticed them at the height of 5000 feet, but towards evening they descend, though rarely to the coast-line. Their roosting- and nesting-places are in cliffs, generally from one to two thousand feet above the sea. In this respect they differ from *C. pallidus*, which is also very numerous, but which particularly affects the coast-line, and which I never saw at any great height inland. So far as I could ascertain, both species are permanent residents, *Cypselus unicolor* certainly is so.

Such were my captures for my first day's work in Gran Canaria; and though it cannot be looked on as a "birdy" country, I had no reason to be dissatisfied with a bag which it required a long day's work to skin, and which added three local species to my collection.

We returned to Las Palmas the next day by a mountain-path on foot, a seventeen-miles walk, with fine rugged scenery, grand in spite of the absence of forest, and passing many of the cave-dwellings of the ancient Guanches, the aboriginal and civilized inhabitants who were dispossessed and too often brutally slaughtered by the Spaniards.

I added a few specimens to my bag on the way, among them the Short-toed Lark (*Alauda brachydactyla*), which occurred on the barest and most rugged mountain-sides, and which is one of the few birds inhabiting Gran Canaria, but

not found, so far as I am aware, on any of the other western islands. Mr. Meade-Waldo met with it in Fuerteventura, but neither he nor I in Tenerife or Gomera. Webb and Berthelot do not notice it. In Canaria it is far from numerous, though the shepherd boys know it and distinguish it from the Pipit. The Hoopoe frequently made his bow to us on the top of a boulder. He is only a spring and summer migrant, but very abundant on all the islands during the season.

One of my most interesting expeditions was a ramble of four days to the south of the island, returning over the highest mountain-passes in the very centre, back by San Mateo to Las Palmas. We drove by the coast to Aguimes, near the S.E. corner of the island, where we had wretched quarters in a loft, swarming with vermin, the only comfortless night I experienced in any of the islands. On the way, near Telde, I made acquaintance with an old Algerian and Syrian friend, the Spectacled Warbler, which seemed to be just returning to its summer-quarters. After this date it occurred everywhere in suitable localities, and I secured specimens in all three islands. It does not ascend very high, but inhabits the low scrub up to about 2500 feet, affecting especially the dry hill-sides and the Euphorbia bushes, in which it builds close to the ground. When we reach the higher elevations its place is taken by the little skulking *Sylvia melanocephala*, not so easily seen though often heard. Webb and Berthelot notice the Spectacled Warbler, under the name of *Sylvia passerina*, as common in all the islands, and give a very accurate description of its habits and nidification. Subsequent writers have identified Webb and Berthelot's *S. passerina* with the Subalpine Warbler, *S. subalpina*, Bonelli (*cf.* Ibis, 1872, p. 175), and have given the latter as inhabiting all the islands on their authority. No one, however, has as yet found the Subalpine Warbler in the group, and it is impossible that Webb and Berthelot could have overlooked the Spectacled, even had not their description been unmistakable. We may therefore eliminate the Subalpine Warbler from the Canary list.

I also noticed three Common Swallows skimming along the Barranco at Telde, and afterwards an occasional solitary specimen might be seen over the gardens round Las Palmas. But the Swallow and House Martin are only spring stragglers. The islands are out of their line of migration, and the few wanderers who may have been driven thither do not generally remain more than a day or two. I noticed a small flock of House Martins hunting down on the mountain-side; but they were gone in the evening, and I never met with a Martin elsewhere. A Swallow which I obtained was of our common English type (*Hirundo rustica*), with the pale lower parts; but I saw one in the hands of the Orotava bird-dealer about as dark as *H. savignii*. Mr. Godman found the Swallow breeding in Tenerife, and, in contrast with its accidental appearance in Canaria, I noticed it daily and in some plenty in Teneriffe.

From Aguimes we made a long day's ramble by Sardina across a desolate volcanic plain towards Maspalomas, the southern point of the island. Our plans did not allow us to spend an additional day here; but I was not aware of what I afterwards discovered, that on the desert-tract before us is the home of the Trumpeter Bullfinch (*Pyrrhula githaginea*) and of the Cream-coloured Courser (*Cursorius galli-cus*), of both of which specimens are in Las Palmas Museum, obtained near Maspalomas. The ground is admirably suited for them, and also faces the island of Fuerteventura, which is here in sight, and may be looked on as the headquarters of these desert-loving birds. Numbers of the little Black Swift (*Cypselus unicolor*) were playing over the plain, at a great height; but these, with a few Kestrels and an occasional *Neophron*, were the only signs of bird-life we noticed.

But when, turning again northward under the fine peak of Iataga, we zigzagged up the gorge of Sitio de Arriba towards Tirajana and the Paso de la Plata, with the Pico de las Nieves rising 6300 feet above it, we were indeed rewarded. The scenery was a strange blending of the most savage rocks, everywhere seeming as though the wreck of some convulsion of yesterday, with the richest semitropical

culture, granges, almonds, and peaches ripening together, and forming the hedges of gardens or plots of peas and other vegetables. Again I got one glimpse of a Falcon. The Buzzard was several times noticed, and the Kestrel was ubiquitous. The Blackcap (*Sylvia atricapilla*) here began to be very abundant, especially in the fruit trees, and I suppose had only just returned. "Capirote," as he is here called, made the narrow Barrancos resound with his music, while in the little open patches of maize or vineyards the Robin and the Blackbird caught up the refrain. We passed on through the villages, or rather little towns, of Santa Lucia and Tiri-jana, perched on the mountain-side, with gushing streamlets bursting on the path-side through the rocks, and carefully utilized for the gardens, while our path was overhung with almond-trees laden with fruit, mingled with oranges, which were only just ripe, for we are here 3000 feet above the sea. We reached the little town of San Bartolomeo at nightfall, 3200 feet above the sea, and (for inns are unknown) called on the Alcalde, and were advised where we might find lodgings. Here we made our headquarters for three days. Our host, a small farmer, was a keen sportsman, and had a well-trained Spanish pointer. He was delighted to accompany me, and was ready to promise every bird after which I made enquiry, especially "Palomo Turquesc." Our first day's work was not encouraging. My guide insisted on working the lower slopes of the mountain just on the edge of the line of cultivation. Hoopoes, Blackbirds, and Black-caps were plentiful. The Tintillon was conspicuous by its absence. There were a few Quails; but I soon found that Don Lorenzo's one idea was to secure French Partridges when his dog pointed them, by potting them before they began to run; and with perdiche in view, he could not understand my looking after "Pajari" or dickybirds. I may here mention that the Quail, which is very numerous (though I doubt whether even Mr. Godman himself could equal his feat in the Western Azores and shoot seventy couple in a day), is declared by the natives to receive large additions to its numbers in spring. I am inclined to doubt this, but to

attribute the belief rather to the bird exercising its vocal organs more lustily at this season ; because all the Quails I have seen here appear to be of the small dark-coloured race found in South Africa, although even darker than the Cape specimens. The wing is fully .25 inch shorter than in British or Syrian specimens, but exactly the same as in Natal and Cape specimens. Not only is the throat-patch black, but the dark chestnut breast is blotched with black patches amid the fine white striæ. I am quite sure our friends across the Atlantic would make the Canarian a very good subspecies at least.

But the Partridge is yet more distinct. It is curious that there should have been such uncertainty as to the distribution of this species. Webb and Berthelot state that the Barbary Partridge (*Caccabis petrosa*) is found in Canaria, Tenerife, Gomera, and Hierro, and make no mention whatever of *Caccabis rufa*. There is no doubt that *C. petrosa* is the only Partridge of Tenerife and Gomera (of Hierro I know nothing), but most certainly in Gran Canaria *Caccabis rufa* is the only species known. It is found in small numbers over the whole country, and seems to have a greater facility in adapting itself to all kinds of country than its congener. Thus while in Tenerife and Gomera the Barbary Partridge affects especially the lofty cliffs overhanging the sea, and the rocky declivities high up on the verge of and beyond the limits of cultivation, the other species in Gran Canaria is found from the coast, on the most barren shores, upwards on the cultivated sides of the Barrancos, and even on the mountain-tops, the barren cumbres, where vegetation has almost ceased. Not only is it numerous in the barley- and wheat-fields about San Bartolomeo, but I have put it up in the vineyards near Atalaya, and one day Mr. Meade-Waldo, walking with me, flushed a pair evidently breeding on the barren cinder-hills not a mile outside the city of Las Palmas. I also put up a pair on the side of the Pico de las Nieves at 5700 feet, where there was absolutely no vegetation but a small *Draba* (?), a dwarf crocus, and some lichens, and where we were walking over the snow which had fallen in the

night. I saw for several days just before the close season numbers of Partridges for sale in the market of Las Palmas, and only of this species.

When I first obtained the French Partridge at San Bartolomeo I was struck by the size of the bill, much larger, I thought, than in any specimen I had seen elsewhere. That this was no accidental variation I ascertained by comparing my skin with twenty-nine other birds I found for sale in Las Palmas on the day of my return. All agreed in dimensions both of bill and tarsus, as well as in coloration. On comparison with the series in the British Museum, and with Lord Lilford's and my own, I find the following marked differences. The Canarian bird has a band of reddish brown on the nape and hind neck, brighter than in French and English, but not brighter than in Spanish examples. But whereas in European birds the whole of the rest of the upper parts are reddish brown, in the Canarian the back and upper tail are slaty grey. I have seen an example from Andalusia which is intermediate between the Northern and the Canarian characters. The black collar round the fore neck is very much wider than in European birds. So marked is the distinction that Mr. Godman felt disposed to describe his specimen from the Azores as a new species, had it not been that it was a wretched and mutilated specimen in moult. But on comparing my Canarian with his Azorean there can be no doubt of their specific identity. But the marked structural distinction is in the beak and tarsi. In French specimens the beak measures 1·33 inch from the gape, and the Canarian 1·82 inch. Depth from the ridge of the culmen: French specimens ·27 inch; Canarian, ·33 inch.

Length of tarsus in French specimens 1·33 inch, Canarian, 1·82, while both bill and tarsus are comparatively far more massive in the insular bird than even their measurements would show. I propose, therefore, to distinguish the latter as

CACCABIS RUFA, var. *AUSTRALIS*.

C. rostro quartâ parte robustiore et longiore quam in
C. rufâ: tarsis robustioribus et dimidio pollicis longi-

oribus: dorso cinereo, nec rufescenti-fusco: fasciâ nigrâ circum guttur latiore quam in *C. rufâ*.

Tarsus long. 1·82 poll. Rostrum a culmine ad imum ·33 poll., long. ·98 poll.

The next day I started early with Don Alfonso to explore the Pinas del Pajonal on the S.W. side of the central mountain mass, where we might possibly meet with the "Turquese." We had to climb by a zigzag path, sometimes a mere niche cut out of the side of the cliff, till we reached the crest of the pass, which opened on to the wide Pinas or Pine-forest. We were standing on a niche in a narrow ridge not 100 yards wide. Nothing could be more startling than the sudden change of scene. Turning round to look at the country we had left we saw a richly cultivated district, with orchards of almond-trees creeping to the very base of the cliffs 1100 feet below us. Before us was spread a wide basin, or rather a valley with a narrow opening at the further end, giving a glimpse of the western ocean; and the whole basin, from the crest of the enclosing mountain downwards, dotted, rather than covered, with small Canarian pine-trees, and here and there an ancient survivor of the primæval forest towering like a giant among the Liliputians.

The Spaniards have recklessly destroyed the forest, chiefly for charcoal, and have not taken the trouble to replant it, leaving only the saplings which twenty years ago were too small for timber. Happily they are thick enough to form a forest in the course of another century if allowed to remain so long. A fine barranco, fed by many tiny rills and cascades from the mountain-sides, drains the basin westward. I saw at a glance that my hopes of the Pigeon were gone, as "Turquese" does not resort to pines, and cover there was none. But I was surprised to see, at the very summit of the pass, a pair of Tits (*Parus teneriffæ*) flitting almost Creeper-like among the little bushes on the face of the cliff. I secured one of them, the other falling into an inaccessible cranny above our heads. We were here 4300 feet above the sea. This was the highest point where I noticed the Titmouse, but it occurs in small numbers at all

the lower elevations down to the coast-line. I had already obtained it among the chestnut-trees near San Mateo; but it is not nearly so numerous in Canaria as in the other islands, in both of which I procured specimens. Some are absolutely without any trace of white edgings to the secondaries and greater wing-coverts, so conspicuous in Algerian birds, but most of them have traces of the white tips more or less distinct, and in one specimen, procured by Mr. Meade-Waldo in the eastern island of Fuerteventura, the white extremities are larger than in Algerian specimens, while, as might be expected in that desert soil, the whole blue plumage is much paler than in any others I have seen, continental or insular.

We spent the whole day in the pine-forest, but with a poor harvest, the only bird of interest I secured being the Great Spotted Woodpecker, identical with our British bird, and not, as has been suggested, *Picus numidicus*. Teneriffe examples are identical with Canarian. But in the former island, I believe that on more than one occasion I saw in the laurel-forest *Picus minor*. I may here remark that there seems to be no evidence whatever that *Parus major* has ever been found in the Archipelago. Messrs. Webb and Berthelot never saw it themselves, and it escaped Mr. Godman's all-penetrating researches.

Our next day's expedition was in a northerly direction from San Bartolemeo by the Paso de la Plata to the Roque del Nublo, the highest crest of Canaria, 6400 feet, and then across the Cumbre down to San Mateo on the northern slope of the central range. If not rewarded ornithologically, we were certainly repaid by the magnificent scenery, which lost none of its grandeur by a fall of snow during the preceding night, which lightly covered the higher peaks. Even here we found the Pipit, the French Partridge, and of course the Raven (*Corvus tingitanus*), while the Little Swift (*Cypselus unicolor*) was disporting itself far overhead. We descended upon Lechuilla, above San Mateo, where begins what has been called the garden of Canaria. The orange mingles with apple, pear, quince, plum, cherry, peach, and almond trees, and here

and there a survival in a noble Canary pine. These orchards abounded in song-birds, the Blackbird, the Robin, and especially the little Blackcap, or "Capirote" as he is called, the favourite songster of the Canarians, while the Chiffchaff was simply everywhere. I never found or saw the black-throated variety of the Blackcap, known from Madeira and described as *Sylvia heinekeni*.

I cannot but think that the Robin of the island is at least an incipient species. It is a permanent resident. All the specimens obtained both by Mr. Meade-Waldo and myself in Canaria and Tenerife are of a richer and darker plumage than European birds, and the red of the breast decidedly deeper, while there is the trace of a white ring round the eye. But in examining a series I notice that some Spanish specimens equal the Canarian in intensity of colour. It is curious, however, that in Gomera, where the Robin is very plentiful and we collected many specimens, all without exception correspond exactly in every particular with British birds. But this is not the only instance in which the avifauna of the little island of Gomera shows a distinct individuality. In some open ground, on our return next day to Las Palmas, I saw the Rock Sparrow (*Fringilla petronia*), now very scarce in the island, and altogether expelled from the towns and villages by that impudent intruder the Spanish Sparrow, which is becoming a perfect nuisance in many places. Happily it has not yet reached Teneriffe, where the Rock Sparrow still utters his ditty unmolested on the eaves and gables of the houses.

I subsequently explored, more or less carefully, the whole of the rest of the island, and I do not think that much remains to be discovered, unless in the way of occasional stragglers. Contrasting this island with its neighbours, we have a pretty fair idea of the result of cultivation and the destruction of forests. The growing scarcity of water may, indeed, induce the Government to encourage the replanting of the higher mountain-sides, which can never have an agricultural value, and to preserve what forests remain in Tenerife and Gomera.

To my enthusiastic, keen, and accurate companion in the latter islands, Mr. Meade-Waldo, for whom I confidently predict a very high place among our rising field-naturalists, I leave the task of describing the researches, in which he bore the chief part, in the latter islands.

III.—On the Genus *Platalea*, with a Description of a new Species from New Guinea. By W. R. OGILVIE-GRANT.

(Plate I.)

THE head and legs of a Spoonbill recently killed at Port Moresby, S.E. New Guinea, were forwarded by Mr. H. Romilly to Lord Walsingham, by whom these interesting remains were presented to the Natural History Museum. The rest of the body had unfortunately been cut up for eating by the natives before the bird was observed by Mr. Romilly; but the whole plumage is said to have been entirely white, like the head, and to have belonged to a bird hitherto unknown in New Guinea.

That no Spoonbill has ever been recorded from Papua is certain, and at the first glance I believed these remains to belong to the Australian black-faced species, *P. melanorhyncha*, Reich. (*P. regia*, Gould), which it seemed probable might have strayed northwards beyond its usual range; but after a very careful comparison with specimens of the Australian bird of the same age I am convinced that the Spoonbill of New Guinea belongs to quite a distinct species, somewhat intermediate between *P. melanorhyncha* and *P. minor*, Temm. & Schl., from Japan and Formosa.

Before venturing to describe a new species on such fragmentary evidence, more especially as the species of this group are not yet well understood, chiefly owing to the scarcity of material in museums and to the difficulty of procuring specimens, I have made a detailed examination of all the available material both in the Natural History Museum and elsewhere, and have attempted to clearly establish the distinguishing characters of the different species. I trust the results may be of some value to those who are interested in